

Best Management Practice (BMP) for Temporary Structures (“YELLOW” LAND USE)

DRAFT: 02/19/2020

Purpose:

To provide guidance on the installation, use, and removal of temporary structures on the preserved premises to comply with Soil Protection Rules.

Definitions:

“Agricultural production” means the production of plants or animals useful to man, including but not limited to: forages or sod crops; grains and feed crops; dairy animals and dairy products; poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules or goats, and including the breeding and grazing of any or all of such animals; bees and apiary products; fur animals; aquatic organisms as part of aquaculture; trees and forest products; fruits of all kinds, including grapes, nuts and berries; vegetables; nursery, floral, ornamental and greenhouse products; or any land devoted to and meeting the requirements and qualifications for payments or other compensation pursuant to a soil conservation program under an agency of the Federal Government. For purposes of this BMP, “agricultural production” shall mean growing crops directly in the soil profile. Land in agricultural production shall have soil loss less than or equal to “T” for the soils present and shall have a positive soil conditioning index (SCI).

“Coarse mulch” means wood chip mulch consisting of shredded leaves, bark, and wood particles ranging from 1 to 4 inches in length, with at least 50% of the mulch having a length of 2 inches or greater.

“Field moisture capacity” means the amount of water retained in a soil after it has been saturated and has drained freely. It is usually expressed as a percentage of the oven dry weight of the soil.

“Garden-type utility shed” means a storage shed that does not have electric, water, gas, oil or sewer connections. It includes, but is not limited to, agricultural structures, tool sheds, chicken coops, rabbit hutches, gazebos, and pool sheds.

“Ground protection mats” means specifically designed construction mats consisting of wood, plastic, or metal that distribute heavy loads over a larger area to prevent soil compaction. Plywood is not acceptable to use as a ground protection mat.

“High tunnel” means a temporary-agricultural structure constructed of a metal, wood, or durable plastic frame covered with polyethylene, polycarbonate, plastic, or fabric material that is at least six (6) feet in height at the peak of the structure. A high tunnel is used to protect crops from sun, wind, excessive rainfall, cold, or to extend the growing season of crops. Also known as a hoophouse, polyhouse, or temporary greenhouse.

“Low intensity” means an area that maintains more than 70% vegetative cover or greater than 90% crop residue, or that is covered by at least six (6) inches of coarse mulch while utilized for temporary structures.

“Low tunnel” means a temporary agricultural structure less than six (6) feet in height that is used to protect crops from sun, wind, excessive rainfall, or cold, to extend the growing season of crops grown in

the soil. A low tunnel is installed by covering a metal, wood, or durable plastic frame with polyethylene, polycarbonate, plastic, or fabric material. Also known as a caterpillar tunnel, this structure does not have a permanent foundation, footings, floor, or anchoring system. The frame and exterior covering may or may not be removed during the growing season.

“Movable structures” means a temporarily placed trailer or skid mounted structures, including but not limited to office trailers, portable trailer-mounted-bathrooms, portable toilets, horse trailers, food carts, or similar structures that are capable of being removed from the Premises without demolition.

“Run-In/Turn-out Shed” means a three-sided, open-bottom shed used to shelter livestock.

“Soil conditioning index” means a Natural Resources Conservation Service (NRCS) tool that predicts the consequences of cropping systems and tillage practices on soil organic matter.

“Temporary tent” means a temporary--structure with an impermeable covering to provide shelter for agriculture-related activities. Also known a tensioned membrane structure or canopy.

Where Practice Applies:

To temporary structures used for agricultural and residential purposes including, but not limited to, high and low tunnels, temporary tents, run-in sheds, garden sheds, and movable structures.

Design Criteria to Qualify for BMP Certification:

1. The use of for all temporary structures shall be compliant with the deed of easement and applicable local and state regulations.
2. Mechanical soil compaction (e.g. with a sheep-foot compactor or vibratory compactor, or similar) at any time shall not be eligible for BMP certification.
3. No topsoil shall be removed, graded, or mixed with the underlying soil for temporary structure installation or use. Areas excavated or mechanically disturbed more than the depth of the plow layer shall be considered land grading and will be subject to the Soil Protection Rules.

High tunnel or low tunnel¹:

1. The primary use of the tunnel area shall be for agricultural production.
2. Shall be installed without any permanent foundation or concrete footings, except as noted in 3. below.
3. Tunnels may be anchored with earth anchors (e.g. duck bill anchors), helical piles, posts, or similar push-or twist-in-anchors.
 - a. If necessary due to soil conditions, no more than 1% of the total number of anchors points be fixed with concrete.
 - b. When used, no anchor shall be created using more than 160 pounds of concrete. (Two bags).

¹ Extrapolated from the Uniform Construction Code N.J.A.C. 5:23-3.1 et seq.

4. Shall not be wider than 31 feet and there shall be an unobstructed path of not greater than 150 feet from any point to a door (300 feet maximum length).
5. The polyethylene, polycarbonate, plastic, or fabric covering shall be no greater than six mils (152.4 micrometers) in thickness that yields approximately four (4) pounds of maximum impact resistance.
6. Shall be fully removed at the end of its useful life.
7. Shall be installed in an orientation that minimizes erosive flow.
8. Shall be installed at adequate spacing between tunnels to minimize erosive flow.
9. Soil erosion from the entire field shall be maintained below the tolerable soil loss tolerance, "T".
10. If soil erosion is above tolerable levels, conservation measures shall be implemented to reduce the soil loss to "T" such as vegetative treatment areas, increase in vegetative cover between tunnels, stormwater management features, or other conservation practices recommended as part of an NRCS conservation plan.
11. The covering may or may not be removed during the growing season.
12. Crops may be grown in the native soil or in containers.

Temporary tent:

1. The primary use of the tent area shall be for agricultural production.
2. Shall not have a permanent foundation, footings, floor, or anchoring system.
3. Shall be installed and removed in a way that minimizes soil compaction, such as installing the tent from previously installed ground protection mats if equipment is being used during install.
4. The soil beneath the entire tent shall maintain low-intensity ground cover throughout its use as a temporary tent or shall be protected from soil compaction through the use of ground protection mats.
5. If a surface other than low-intensity-ground-cover or ground protection mats are desired, the Semi-Permanent Parking and Storage Areas BMP shall be followed.
6. Shall not be installed or removed from the site when soil moisture is at or above field moisture capacity.
7. Shall be preferentially placed on existing disturbed surfaces when possible.
8. Shall be 140 feet or less in any dimension and 16,800 square feet or less in area whether comprised of one unit or multiple units.
9. Shall not be in place for more than 30 consecutive days from April 1 to November 30.
10. If tents are utilized outside of the April 1 to November 30 time period, ground protection mats shall be installed.
11. The use of temporary tents for more than 120 days in a 12-month period does not qualify for Temporary Structures BMP certification.
12. Within 30 days of the end of the use of the temporary tent the soil shall be restored to a condition suitable for agricultural production by reseeding, planting with cover-crop, mulching with straw, or other practices identified in the Farm Conservation Plan.
13. Shall have all mulch removed from the area within as soon as reasonably practical, when soil is at or below field capacity or frozen. In all cases, care should be taken to avoid compaction during removal.
14. To avoid erosion, mulched areas shall be over-seeded, planted, or covered with appropriate agronomic mulches such as straw or leaves within 1 week of coarse mulch removal.
15. All use of the field shall maintain an annual soil loss at or below "T".

Movable structures:

1. The primary use of the land beneath the structure shall be for agricultural production.
2. Shall be limited to the minimum number required for the intended agricultural purpose or, in the case of portable bathrooms or similar structures, as required by law.
3. Shall be placed on existing disturbed surfaces, when possible.
4. Shall not be delivered, relocated, or removed from the site when soil moisture is at or above field moisture capacity.
5. When leveling jacks or other support systems are required to stabilize a movable structure, a minimum 12 inches by 12 inches by 2 inches board or other similar load-distributing-surface shall be placed under each support.
6. Shall be in place for no more than 120 days in a 12-month period.
7. Within 30 days of the end of the use of the movable structure the soil shall be restored to a condition suitable for agricultural production by reseeding, planting with cover-crop, mulching with straw, or other practices identified in the Farm Conservation Plan.

Run-in/Turn-out Shed²

1. Shall not have a permanent foundation or floor.
2. Installation of gravel beneath the structure shall follow the Semi-Permanent Parking and Storage Areas BMP.
3. Shall be less than 250 square feet in area and less than 14 feet in height.
4. Shall have no utility connections (electric, water, gas, oil or sewer connections).
5. Use of course mulch and/or ground protection mats is encouraged.
6. Shall be capable of being moved using normal farm equipment.
7. Shall not be moved when soil moisture is above field moisture capacity.

Garden-type Utility Shed³

1. Shall not have a permanent foundation.
2. Shall be less than 200 square feet in area and less than 10 feet in height.
3. Installation of gravel beneath the structure must follow the BMP for Semi-Permanent Parking and Storage Areas BMP.
4. Shall be capable of being moved using normal farm equipment.
5. Shall not be moved when soil moisture is above field capacity.

Maintenance:

Runoff from temporary structures must be managed in a way that controls water flow to minimize erosion.

Restoration:

At the end of a structure's useful life, it shall be removed along with all anchors.

² Extrapolated from the Uniform Construction Code N.J.A.C. 5:23-3.1 et seq.

³ Extrapolated from the Uniform Construction Code N.J.A.C. 5:23-3.1 et seq.